

elliptical, small to medium, usually one-half to five-eighths inch long by three-eighths inch thick, sometimes larger. Flesh actually almost colorless, but appearing dark on cutting open, because of the dark skin and colored layer immediately below it. Skin rather tender; only very slightly, or not at all, astringent. Flesh quite firm, juicy, and sweet. Seeds none or, if present, so tender that they are not noticeable on chewing, having no hard coat. Bunches rather small, not over one-half pound, with a pronounced shoulder, rather loose, and easy to spray. Except that it stains the fingers and mouth, I consider this variety superior to *Ok Uziim*, No. 9578, and *Kishnish*, No. 9576." (*Bessey*.)

9580. *SALSOLA ARBUSCULA*.

From Chardjui, Russian Central Asia. Received through Mr. E. A. Bessey from Mr. V. Paletzky, forester, of Chardjui (No. 194, October 3, 1902), May 1, 1903.

"This plant is one of the best sand binders in this region. It forms a large shrub, or even small tree, 15 to 20 feet high. It grows without irrigation in sand in a very hot region where no rain falls from April to November. In the winter it endures severe cold. This plant can be propagated either by seed (sown from January to March) or cuttings (also planted in early spring). In either case a stand of about 40 per cent is obtained. If grown along with *Aristida pennata* var. *Karelini*, No. 9582, it seeds itself in the tufts of the latter, and soon is able to take care of its own dissemination." (*Bessey*.)

9581. *HALOXYLON AMMODENDRON*.

From Chardjui, Russian Central Asia. Received through Mr. E. A. Bessey from Mr. V. Paletzky, forester, of Chardjui (No. 195, October 3, 1902), May 1, 1903.

"This plant often becomes a tree 20 to even 30 feet high, with a trunk 15 to 18 inches in diameter near the base. It requires a clay subsoil which holds some moisture. It is very hard to establish, but when once started is valuable as a sand binder. It will not endure salt." (*Bessey*.)

9582. *ARISTIDA PENNATA* VAR. *KARELINI*.

From Chardjui, Russian Central Asia. Received through Mr. E. A. Bessey from Mr. V. Paletzky, forester, of Chardjui (No. 196, October 3, 1902), May 1, 1903.

"This grass, itself valuable as a sand binder, is especially valuable from the fact that its tufts act as shelters in which the seeds of *Salsola arbuscula* (No. 9580) and *Calligonum* sp. (Nos. 9583 to 9594) lodge and grow. Nearly every bunch of this grass will be found to have growing in it a young plant of *Salsola* or *Calligonum*. The seeds are sown in holes in the sand and covered with sand by the workman's foot, or are sown at the rate of 1 pound to 200 or 300 pounds of sand and sown broadcast; the former method is, however, preferable. It is sown in the hollows between the sand dunes, and requires only one seeding, as the following year it reseeds itself." (*Bessey*.)

9583 to 9594. *CALLIGONUM* sp.

From Chardjui, Russian Central Asia. Received through Mr. E. A. Bessey from Mr. V. Paletzky, forester, of Chardjui (No. 197, October 3, 1902), May 1, 1903.

9583. *CALLIGONUM ARBORESCENS* and *C. CAPIT-MEDUSAE*.

"A mixture of these two species. These two are the best of the *Calligonum*s for sand-binding purposes. They form small trees. They are superior to *Salsola arbuscula* in that when planted from seeds or from cuttings 90 per cent grow, inferior in that they do not reseed themselves very well." (*Bessey*.) (No. 197, October 3, 1902.)

Additional species sent by Mr. Paletzky.

9584. *CALLIGONUM ACANTHOPTERUM*, BORSCH. VAR. *SETOSA*.